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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,130	08/24/2005	Walter Bernig	785-012074-US (PAR)	3497
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EXAMINER				
WOOD, ELLEN S				
ART UNIT		PAPER NUMBER		
1794				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/523,130

**Applicant(s)**

BERNIG ET AL.

**Examiner**

ELLEN S. WOOD

**Art Unit**

1794

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 and 23-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 and 23-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claims 24 and 25 are objected to because of the following informalities: The claims state ***"ethylene/vinyl copolymer"***, the examiner believes that the statement should be ***"ethylene/vinyl alcohol copolymer"*** as it is stated in the reference claim 5. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 6 and 7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 6 and 7 recite ***"a mixture of 30-45 wt% EVOH and 55-70 wt% multipolyamide"*** however, these ranges are not reasonably conveyed in the specifications. The ranges specifically given within the specification are 10-45 wt% or 20-40 wt% EVOH and 55-90 wt% or 60-80 wt% multipolyamide. Thus, these are the ranges that maybe used within the claims, because they are specifically cited and reasonably conveyed to one skilled in the art.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-13, 15-21, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ramesh et al. (US 5,763,095, hereinafter "Ramesh").

In regards to claim 1, Ramesh discloses a multilayer film having a combination of relatively low oxygen transmission and relatively high carbon dioxide transmission (col. 1 lines 5-8). The structures contain layers that comprise EVOH and CPA-3 (col. 13 example 9). CPA-3 refers to a nylon 6.6/6,9/6I terpolymer (col. 7 lines 37-30), where the terpolymer comprises hexamethylene amide (col. 4 lines 5-6), which corresponds to applicants "multipolyamide" comprising component I as the 6,6, component II as the 6,9 and/or 6,10 and component III as the 6I. The preferred terpolymers include 66/69/61, where 1 refers to isophthalic acid mer, 66/69/6T, 66/610/61, and 66/610/6T (cols. 3-4 line 67 and lines 1-4).

In regards to claim 2, Ramesh discloses a multilayer film comprising of a terpolymer that comprises 10-60% by weight hexamethylene adipamide, 10-60% by weight polyamide mer and 10-60% by weight hexamethylene isophthalamide mer (col. 4 lines 4-7). The examiner notes that the instant claims are in mol%, however, the

compounds are comparatively the same and the conversion between percent by weight and mol% would be comparatively the same. The ranges of Ramesh are within the majority of the broad range in the applicants claim.

In regards to claims 3-4, Ramesh discloses that it is preferred the terpolymer in the multilayer film comprises 20-50% by weight hexamethylene adipamide mer, 20-50% by weight polyamide mer, and 10-40% by weight hexamethylene isophthalamide mer (col. 4 lines 8-11). These ranges are within the majority of the broad range of the applicant.

In regards to claims 5, 24 and 25, Ramesh discloses that the EVOH used in the multilayer film is an ethylene vinyl alcohol copolymer having 44-mole percent ethylene (col. 8 lines 5-6).

In regards to claims 6-7, Ramesh discloses that the nylon copolymer may be blended with another oxygen barrier resin such as ethylene vinyl alcohol copolymer (EVOH) in order to achieve a desired set of properties (col. 5 lines 1-5). The blends can range from 1-99% of the partially aromatic nylon and 99-1% of the second material, more preferably 25-75% of the partially aromatic nylon and 75-25% of the second material (col. 5 lines 41-44).

In regards to claim 11, Ramesh discloses a film that contains an EVOH and nylon copolymer-containing layer that lowers the oxygen transmission rate of the total film structure (col. 5 lines 10-14). The film contains an oxygen gas barrier layer with at least 2 outer layers (col. 13 example 9).

In regards to claim 12, Ramesh discloses that a tie layer is provided between said nylon copolymer layers and said further polymeric layer. The adhesive layer comprises a modified polyolefin capable of adhering to each of said nylon copolymer layer and said further polymeric layer (col. 20 claim 14). The coupling agent layer in the applicants claim is preferably a modified polyolefin (pg. 6 lines 13-15). Thus, the adhesive layer is comparatively the same as the coupling agent layer, because of the use of a polyolefin in both Ramesh and the applicant.

In regards to claim 13, Ramesh discloses that the tie layers of the film comprise modified polyamides and modified polyolefins (col. 6 lines 63-65). The modified polyamides refer to polymers having anhydride functionality grafted onto (col. 3 lines 33-36). A specific example is "modified ethylene vinyl acetate copolymer" (col. 3 lines 29-30). The polyolefin is LLDPE (col. 2 lines 43-46).

In regards to claim 15, Ramesh discloses that the film is stretched either in a longitudinal direction, a transverse direction, or both (col. 1 lines 42-55).

In regards to claim 16, Ramesh discloses that the film is partially or completely cross linked (col. 6 lines 4-5).

In regards to claim 17, Ramesh discloses that the film is to incorporate a shrink feature (col. 1 lines 48-49).

In regards to claim 18, Ramesh discloses that the film material is suitable for using in packaging oxygen sensitive products which emit carbon dioxide gas, such as high gassing cheeses (abstract).

In regards to claim 19 and 21, Ramesh discloses that it is common in the packaging of high gassing chesses to package the cheese product in a film, cure the cheese, and then store the cheese, prior to purchase by the consumer (col. 4 lines 30-35). Thus, the process of curing the cheese after packaging implies that the cheese is still ripening.

In regards to claim 20, Ramesh discloses that the film material is used to package cheese (abstract). It would be obvious to one of ordinary skill in the art that cheese can be either semi-hard or hard.

In regards to claim 26, Ramesh discloses that the outer nylon layers are heat sealable (col. 20 lines 57-58).

Ramesh is silent with regards to the use of the mixture of EVA and LLDPE and the packaging film being a pouch.

In regards to claims 9-10, Ramesh discloses the nylon copolymer of the film material of the present invention may be blended with other polymer material in order to achieve or optimize one or more desired film properties (col. 5 lines 33-36). The specific resins that may be employed include ethylene, propylene and butane homopolymers and copolymers, both heterogeneously and homogeneously catalyzed (col. 6 lines 35-38). A layer of EVA-2 and HDPE is used in the multilayer structure (col. 13 example 9). It would be obvious to one of ordinary skill in the art to provide a layer, which comprises EVA and LLDPE to produce a more flexible multilayer film material than that when HDPE is used in the film.

In regards to claim 23, Ramesh discloses a packaging film (col. 1 line 5). The packaging film is used to allow cheese to ripen over time before sold to the consumer. The nylon layers are heat sealable (col. 20 lines 57-58). It would be obvious to one of ordinary skill in the art at the time of the invention that the packaging film is heat sealable, thus would be able to form closed sides to form a pouch structure. Also, a pouch is a conventional packaging method.

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ramesh et al. (US 5,763,095, hereinafter "Ramesh") in view of Vadhar (US 6,333,061).

In regards to claim 14, Ramesh discloses the packaging film as discussed in the previous section. Ramesh is silent with regards to a colored coupling agent layer. Vadhar discloses a multilayer film suitable for packaging that contains a tie layer with a polymeric adhesive, an anhydride grafted polyolefins blend, a coloring agent, LDPE and EVA (table 9). It would be obvious to one of ordinary skill in the art to use the coloring agent tie layer in Vadhar with the multilayer film of Ramesh to form a colored package that could be used for marketing strategies.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-21 and 23-26 have been considered but are moot in view of the new ground(s) of rejection.

The applicant amended the claims thus a new grounds of rejection was applied.



The applicant argues that the percentage of EVOH and multipolyamide is not within the range of Ramesh. The examiner has shown that Ramesh discloses the percentages claimed by applicant within the new grounds of rejection, thus the Vadhar rejection still stands.

8. Claim 22 has been cancelled.
9. Claims 24-26 have been added.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ELLEN S. WOOD whose telephone number is (571)270-3450. The examiner can normally be reached on Monday-Friday 7-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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